

Research paper  
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Since World War I (WWI), the United States Army Air Forces (USAAF) looked at strategic bombing as a means to make the Air Forces a separate service. Prior to WWII, General William “Billy” Mitchell came to believe that future wars would require striking deep in enemy territory to attack industrial targets through strategic bombing. This belief in strategic bombing carried into WWII as USAAF leaders initially considered only this tactic of attacking the enemy. Some USAAF leaders thought this was the only way to fight and others were determined to do what it took to achieve the desired results. This paper will discuss how General Curtis “Eagle” LeMay’s leadership style and willingness to adjust tactics to incorporate area bombing in addition to precision bombing led to better results than achieved by General Haywood “Possum” Hansell’s strategic bombing. First, there will be a discussion of General Hansell and his commitment to strategic bombing, and in particular High Altitude Daylight Precision Bombing (HADPB) against Germany and Japan. Next, will be a discussion of General LeMay’s viewpoint on strategic bombing and leadership during his experience in fighting the Germans and Japanese. In combat, there are often key decisions that commanders are required to make, and the decision to stick with precision bombing when results were showing its ineffectiveness inevitably cost lives, equipment and money.

Throughout his career, General Hansell’s commitment to the theory of strategic bombing was obvious. During the prewar period, Possum was an instructor at the Air Corps Tactical School (ACTS) where General LeMay was one of his students. During his time as an instructor, “he was deeply committed to Brig. Gen. Billy Mitchell’s prewar theory that victory could be achieved through airpower by bombing vital military targets.”<sup>1</sup> While at the ACTS, General Hansell also taught the importance of high altitude precision bombing and that one could achieve victory by this means without the need for a land invasion.<sup>2</sup> This commitment to strategic and

HADPB is seen throughout General Hansell's career.

General Hansell started his wartime career in England as a planner on the Eighth Air Force staff and later became a wing commander where his advocacy of HADPB continued. One example of this commitment comes into play after a mission briefing that discussed splitting up a group. A crewmember questioned him as to why the U.S. did not follow the British Royal Air Force (RAF) tactic of flying at night until fighter escorts were available. The Possum's response was simply "The RAF engages in night bombing. It is contrary to air force policy."<sup>3</sup> By that comment, one can see that he did not even consider going against the policy of the USAAF at the time, even at the cost of possibly risking aircrew safety. General Hansell was not the only one who showed commitment to HADPB, as Generals Arnold and Eaker were also on the same team. Army and Navy leaders at the Casablanca conference started to become concerned that HADPB wasn't achieving results and they wanted to get rid of HADPB.<sup>4</sup> The British also had concerns over the effectiveness of HADPB. British Prime Minister Winston Churchill was considering forcing USAAF based in his country to abandon HADPB and join Britain in nighttime area bombing. To stop this, General Arnold sent General Eaker to talk to him in an effort to convince him that HADPB could work if given time.

Bombing accuracy in 1943 was terrible because of reasons, one of which was weather. There was often cloud cover and poor weather in the European theater, which inhibited the ability to see the target area and use HADPB techniques. "The average circular error in 1943 was 1,200 feet, meaning that only 16 percent of the bombs fell within 1,000 feet of the aiming point. Rather than dropping bombs into pickle barrels, Eighth Air Force bombardiers were having trouble hitting the broad side of a barn."<sup>5</sup> These types of results did not hamper the

commitment to HADPB as missions continued with primary targets being attacked using precision bombing along with secondary targets that were mostly area targets. On many occasions, weather covered the primary targets forcing crews to move on to their secondary targets or targets of opportunity using what were essentially area-bombing techniques. Even when evidence seemed to show otherwise, General Hansell made the results fit what he was trying to accomplish. General Hansell told his subordinate commanders that leadership was happy with the results of the new missions and that he thought this was proof that daylight strategic bombing could be successful. As the war continued to the summer of 1943, the situation was not improving bombing results were not up to par, and losses of planes and crews continued. According to Hansell, once a country enters a war it should attempt to win it in such a way that attains the national war aims.<sup>6</sup> One of the five ways for airpower to achieve these ends was “as a last resort, destroying great numbers of the enemy people or depriving them of the means to support themselves, particularly the masses dwelling in the cities.”<sup>7</sup> Two of the tactics that one could use as a means to these ends, area bombing and incendiary bombing, were not even considered by Hansell, even though HADPB was not achieving the desired results.

When the US captured the Marianas Islands of Saipan, Tinian, and Guam, the B-29s were now in possession of bases from which they could reach almost any target in Japan. The “XXI Bomber Command was established there, with Hansell, the AWPD-1 planner, now a brigadier general and the most fervent of the daylight precision bombing advocates, in command”<sup>8</sup> Even though General Hansell found himself in the Pacific fighting a new enemy, the Japanese, his commitment to HADPB remained. This commitment remained despite a Committee of Analysts report stating, among other things, the “extreme vulnerability of Japanese urban areas to incendiary attack”.<sup>9</sup> In Japan, bombing results again were very disappointing, with few bombs

landing near the intended targets, but this did not alter General Hansell's course. Even though General Arnold advised General Hansell of General LeMay's successes in China using a different technique, he was reluctant to change. Hansell seemed to blame lack of effort on the part of aircrews for mission failures instead of looking at other possible causes. General Hansell's failure to achieve results in Japan were due to three main problems: inflexibility concerning HADPB, his drive to prove that HADPB could achieve results without heavy losses, and his promise to commence bombing on Japan despite knowing the crews were not ready.<sup>10</sup> The Possum's leadership style and overzealous commitment to doctrine ultimately cost him two combat leadership positions.

As a student under General Hansell, General LeMay received an introduction to the theories concerning HADPB, but his career did not show the consistent commitment to those tactics. The main difference between the Possum and the Eagle was the willingness of General LeMay to adjust tactics and make changes, which not only improved bombing results but also improved the safety of the crews entrusted to him. For example, General LeMay changed bomber formations to increase safety and instituted straight and level bomb runs to improve accuracy. Unlike Hansell, General LeMay did not buy off on reports that overstated the results which were used as "proof" that HADPB could be successful. When the British started using radar in bombing, LeMay sent his group navigator to train under one of the RAF's most experienced radar navigators.<sup>11</sup> This demonstrated General LeMay's commitment to mission success over strict adherence to doctrine.

In May of 1943, General LeMay took over command of the Third Bomb Wing where he was in a better position to make changes in tactics to affect mission success. Combat losses in the summer of 1943 showed that HADPB without the support of fighters was in serious

trouble.<sup>12</sup> In order to reconcile the situation there was a recommendation to consider adopting the RAF tactic of using radar on night missions to attack Germany as the RAF hit more targets in two German towns than the U.S. did all summer.<sup>13</sup> The initial results of the missions showed success with a huge decrease in aircraft losses. The USAAF also accepted the fact that it could only hit precision targets during periods of good weather, which was only about half of the time. The lack of good weather forced the U.S. to revert to area bombing instead of not bombing at all.<sup>14</sup> Between July and October of 1943, there were 454 bombers lost with 4,940 men lost due to lack of fighter escort in the HADPB missions.<sup>15</sup> Despite the overall heavy losses, General Lemay's wing achieved better results while suffering fewer losses in the war against Germany.<sup>16</sup>

General LeMay was then sent to the Pacific theater to help the Chinese in the fight against Japan. Like before, LeMay made changes to achieve success. After seeing that traditional tactics were not working with the new B-29s, General LeMay decided to reduce the bombing altitude and bomb almost entirely with incendiaries. The results were impressive.<sup>17</sup> While flying the lower altitude mission there was an important discovery; the new B-29s experienced fewer engine problems. Because of LeMay's success General Arnold entrusted him to develop tactics that would destroy Japanese military production capabilities and the will of the people.<sup>18</sup> Because of his overall successes, General LeMay was given a transfer to take command of the XXI Bomber Command from General Hansell.

In his new job, General LeMay promised General Hansell that he would engage in HADPB but would not rule out incendiary bombing especially when its use against Japanese cities would destroy military targets.<sup>19</sup> LeMay was not concerned with anything other than achieving results. Again, he lowered bombing altitudes to achieve results and reduce the strain on the engines.<sup>20</sup> After trying HADPB and lower altitude bombing with no success, LeMay

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received a recommendation to try incendiary bombing which proved successful. After a few more attempts at HADPB, General LeMay switched back to using incendiaries mixed with high explosive bombs and the outcome showed lower aircraft losses and better bombing results. General LeMay was eventually given free rein over tactics in order to bring an end to the war. Incendiary bombing at night, because of the lack of fighter support, was an effective way to destroy the war production capacity of Japan. These attacks used pathfinders to find the targets and resulted in the destruction of sixteen square miles of Tokyo and at least a hundred thousand deaths.<sup>21</sup> These successful results caused the scheduling of more attacks on Japanese cities until LeMay ran out of incendiary bombs and almost ran out of targets as well. General LeMay seemed to understand that to keep his job he needed to produce results, and the obvious solution was to switch from precision bombing to area bombing.<sup>22</sup>

One thing that helped General LeMay achieve better results than many of his counterparts throughout the war was his commitment to training. LeMay felt that members of his command should be trained for the jobs that they must do.<sup>23</sup> He felt that his crew should get in all of the practice and training possible before they went to the fight.<sup>24</sup> Another aspect of this included the setting up of schools to train “Lead Crews” in an effort to improve bombing results.<sup>25</sup> As the weather was often a factor on missions, General LeMay also instituted a training program designed to allow pilots to take off on instruments in periods of low ceilings and poor visibility.<sup>26</sup> LeMay wanted to be sure that when pilots had to do something on a combat mission, it was not the first time they had done it. “Train like you fight” is how this idea is used in today’s Air Force, and is ingrained in all crewmembers in the combat air forces. LeMay said, “There is no substitute for time on the job. No substitute, ever for experience.”<sup>27</sup>

It is hard to deny the effects that area and incendiary bombing had on ending the war against Japan. As LeMay says in his memoir, “It was terrain and reign of flame which demoralized Japanese industry, shattered the military heart, and whipped the populace into a state where they could—and would—accept the idea of surrender. Fire, not high explosives did this.”<sup>28</sup> According to results, there were 5,734 precision bombing sorties dropping a total of 32,845 tons of bombs.<sup>29</sup> Urban industrial attacks accounted for 21,671 sorties dropping 138,215 tons of bombs.<sup>30</sup> These results show that only 19 percent of the sorties and tonnage dropped went to selective targets using precision techniques while 80 percent went to urban incendiary attacks using area-bombing techniques.<sup>31</sup> With this huge discrepancy in numbers, it is no wonder that the urban incendiary attacks had the effects they did. According to the US Strategic Bombing Survey, “the urban-area incendiary raids had profound repercussions on civilian morale and Japan’s will to stay in the war”.<sup>32</sup> The report also stated that “the bombing offensive was the major factor which secured agreement to unconditional surrender without the invasion of the home islands” which would have very likely resulted in the loss of many American lives.<sup>33</sup> These results were likely achieved because of the willingness of warriors like General LeMay to break away from the norm and do what it took to achieve the results necessary to end the conflict on terms favorable to the US.

In conclusion, the determination of General Curtis LeMay to make whatever changes were necessary to achieve the desired results had a significant effect on the outcome of WWII.<sup>34</sup> In contrast, General Hansell’s obsession with HADPB regardless of the results often had a negative outcome. Results consistently showed that HADPB failed to achieve the desired results for a number of reasons, which included weather and aircrew training. “In theory, precision bombing appears to be much more efficient than area bombing, but operational problems made

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precision bombing less effective than advocates expected.”<sup>35</sup> As one cannot control the weather, and waiting for the weather to improve was not always an option, changes were required for success. Unlike Hansell, General LeMay was willing to make necessary changes to training and tactics in order to improve results and the safety of aircrews to include the area bombing of Japanese cities using incendiary bombs. General LeMay’s firebombing campaign against the Japanese achieved unrivaled results while reducing casualty rates, an effort that convinced the Japanese that victory was in question.<sup>36</sup> In closing, General LeMay’s leadership style, willingness to diverge from doctrine and his commitment to training led to his overall success as a commander.



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<sup>1</sup> Ralph H. Nutter, *With the Possum and the Eagle: The Memoir of a Navigator's War over Germany and Japan* (Novato, CA: Presidio Press, 2002), 39.

<sup>2</sup> Ibid., 39.

<sup>3</sup> Ibid., 26.

<sup>4</sup> Ibid., 52.

<sup>5</sup> John T. Correll, "Daylight Precision Bombing." *Air Force Magazine* (Oct 2008), 62.

<sup>6</sup> Haywood S. Hansell, Jr., *The Strategic Air War Against Germany and Japan: A Memoir*. (Washington, D.C.: Office of Air Force History, United States Air Force, 1986), 47.

<sup>7</sup> Ibid., 47.

<sup>8</sup> John T. Correll, "Daylight Precision Bombing." *Air Force Magazine* (Oct 2008), 63.

<sup>9</sup> Haywood S. Hansell, Jr., *The Strategic Air War Against Germany and Japan: A Memoir*. (Washington, D.C.: Office of Air Force History, United States Air Force, 1986), 167.

<sup>10</sup> Ralph H. Nutter, *With the Possum and the Eagle: The Memoir of a Navigator's War over Germany and Japan* (Novato, CA: Presidio Press, 2002), 212.

<sup>11</sup> Ibid., 76.

<sup>12</sup> Ibid., 127.

<sup>13</sup> Ibid., 127.

<sup>14</sup> Thomas R. Searle, "'It Made a Lot of Sense to Kill Skilled Workers': The Firebombing of Tokyo in March 1945." *The Journal of Military History*, Vol. 66, No. 1 (Jan 2002), 109.

<sup>15</sup> Ralph H. Nutter, *With the Possum and the Eagle: The Memoir of a Navigator's War over Germany and Japan* (Novato, CA: Presidio Press, 2002), 142.

<sup>16</sup> Ibid., 144.

<sup>17</sup> Ibid., 177.

<sup>18</sup> Ibid., 218.

<sup>19</sup> Ibid., 225.

<sup>20</sup> Ibid., 230.

<sup>21</sup> Ibid., 243.

<sup>22</sup> Thomas R. Searle, "'It Made a Lot of Sense to Kill Skilled Workers': The Firebombing of Tokyo in March 1945." *The Journal of Military History*, Vol. 66, No. 1 (Jan 2002), 113.

<sup>23</sup> Curtis E. LeMay, *Mission With LeMay—My Story*. Garden City, (New York: Doubleday & Company, Inc, 1965), 216.

<sup>24</sup> Ibid., 216.

<sup>25</sup> Ibid., 256-257.

<sup>26</sup> Ibid., 291.

<sup>27</sup> Ibid., 291.

<sup>28</sup> Ibid., 368.

<sup>29</sup> Haywood S. Hansell, Jr., *The Strategic Air War Against Germany and Japan: A Memoir*. (Washington, D.C.: Office of Air Force History, United States Air Force, 1986), 234.

<sup>30</sup> Ibid., 234.

<sup>31</sup> Ibid., 234.

<sup>32</sup> Ibid., 248.

<sup>33</sup> Ibid., 248-249.

<sup>34</sup> Curtis E. LeMay, *Mission With LeMay—My Story*. Garden City, (New York: Doubleday & Company, Inc, 1965), 347.

<sup>35</sup> Ibid., 106.

<sup>36</sup> Ralph H. Nutter, *With the Possum and the Eagle: The Memoir of a Navigator's War over Germany and Japan* (Novato, CA: Presidio Press, 2002), 248.

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